CLAIMS

1. A methodology for tracking objects comprising:

affixing at least one imagable identifier onto each of a multiplicity of objects to be tracked;

imaging at least a portion of at least one of the multiplicity of objects at a known location to provide an at least partial image of said at least one of said multiplicity of objects, containing said at least one imagable identifier; and

employing said at least partial image of said object containing said at least one imagable identifier to provide an output indication of the location of said at least one of said multiplicity of objects.

2. A methodology for tracking objects according to claim 1 and also comprising communicating at least one of said at least partial image and said output indication to a remote location.

3. A methodology according to claim 1 and wherein said affixing includes adhesively attaching said at least one imagable identifier onto a surface of each of said multiplicity of objects.

4. A methodology according to claim 1 and wherein said affixing includes molding said at least one imagable identifier onto a surface of each of said multiplicity of objects.

5. A methodology according to claim 1 and wherein said affixing includes printing said at least one imagable identifier onto a surface of each of said multiplicity of objects.

6. A methodology according to claim 1 and wherein said at least one imagable identifier comprises a multi-color identifier.

7. A methodology according to claim 1 and wherein said at least one imagable identifier comprises a multi-segment, multi-color identifier.

8. A methodology according to claim 7 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = (n \times (n - 1)^{(p-2)} \times (n - 2))/p$$

where

n is the number of different colors and

p is the number of segments.

9. A methodology according to claim 7 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = n \times (n - 1)^{(p-2)} \times (n - 2)$$

where

n is the number of different colors and

p is the number of segments.

10. A methodology according to claim 9 and wherein said multi-segment, multi-color identifier has an inherent orientation.

11. A methodology according to claim 9 and wherein said imaging comprises photographing.

12. A methodology according to claim 1 and wherein said imaging comprises imaging a plurality of said objects together within a single image.

13. A methodology according to claim 1 and wherein said imaging comprises sequentially imaging a plurality of said objects passing a given imaging location.

14. A methodology according to claim 1 and wherein said at least one imagable identifier comprises a plurality of imagable identifiers arranged in at least predetermined propinquity to each other.

15. A methodology according to claim 9 and wherein said imaging comprises imaging a plurality of said objects together within a single image.

16. A methodology according to claim 1 and wherein employing said at least partial image of said object containing said at least one imagable identifier comprises extracting an identification code from said at least partial image.

17. A methodology according to claim 1 and wherein said identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = (n \times (n - 1)^{(p-2)} \times (n - 2))/p$$

where

n is the number of different colors and

p is the number of segments.

18. A methodology according to claim 1 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = n \times (n - 1)^{(p-2)} \times (n - 2)$$

where

n is the number of different colors and

p is the number of segments.

19. A methodology according to claim 1 and wherein said identifier has an inherent orientation.

20. A methodology according to claim 1 and wherein said imaging comprises photographing.

21. An object tracking system comprising:

at least one imagable identifier affixed onto each of a multiplicity of objects to be tracked;

an imager, imaging at least a portion of at least one of said multiplicity of objects at a known location to provide an at least partial image of said at least one of said multiplicity of objects, containing said at least one imagable identifier; and

a processor employing said at least partial image of said object containing said at least one imagable identifier to provide an output indication of the location of said at least one of said multiplicity of objects.

22. An object tracking system according to claim 21 and also comprising a communicator, communicating at least one of said at least partial image and said output indication to a remote location.

23. An object tracking system according to claim 21 and wherein said affixing includes adhesively attaching said at least one imagable identifier onto a surface of each of said multiplicity of objects.

24. An object tracking system according to claim 21 and wherein said identifier is molded onto a surface of each of said multiplicity of objects.

25. An object tracking system according to claim 21 and wherein said identifier is printed onto a surface of each of said multiplicity of objects.

26. An object tracking system according to claim 21 and wherein said at least one imagable identifier comprises a multi-color identifier.

27. An object tracking system according to claim 21 and wherein said at least one imagable identifier comprises a multi-segment, multi-color identifier.

28. An object tracking system according to claim 27 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = (n \times (n-1)^{(p-2)} \times (n-2))/p$$

where

n is the number of different colors and

p is the number of segments.

29. An object tracking system according to claim 27 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = n \times (n-1)^{(p-2)} \times (n-2)$$

where

n is the number of different colors and

p is the number of segments.

30. An object tracking system according to claim 29 and wherein said multi-segment, multi-color identifier has an inherent orientation.

31. An object tracking system according to claim 29 and wherein said imaging comprises photographing.

32. An object tracking system according to claim 21 and wherein said imaging comprises imaging a plurality of said objects together within a single image.

33. An object tracking system according to claim 21 and wherein said imaging comprises sequentially imaging a plurality of said objects passing a given imaging location.

34. An object tracking system according to claim 21 and wherein said at least one imagable identifier comprises a plurality of imagable identifiers arranged in at least predetermined propinquity to each other.

35. An object tracking system according to claim 29 and wherein said imaging comprises imaging a plurality of said objects together within a single image.

36. An object tracking system according to claim 21 and wherein said processor is operative to extract an identification code from said at least partial image.

37. An object tracking system according to claim 21 and wherein said identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = (n \times (n - 1)^{(p-2)} \times (n - 2))/p$$

where

n is the number of different colors and

p is the number of segments.

38. An object tracking system according to claim 21 and wherein said multi-segment, multi-color identifier is capable of identifying and distinguishing a plurality of objects at least equal to approximately:

$$\text{Plurality of objects} = n \times (n - 1)^{(p-2)} \times (n - 2)$$

where

n is the number of different colors and

p is the number of segments.

39. An object tracking system according to claim 21 and wherein said identifier has an inherent orientation.

40. An object tracking system according to claim 21 and wherein said imaging comprises photographing.

41. An object tracking system according to claim 21 and wherein output from said imager can be stored for future retrieval.

42. An object tracking system according to claim 27 and wherein output from said imager can be stored for future retrieval.

43. An object tracking system according to claim 29 and wherein output from said imager can be stored for future retrieval.

44. A methodology according to claim 1 and wherein output of said imaging can be stored for future retrieval.

45. A methodology according to claim 7 and wherein output of said imaging can be stored for future retrieval.

46. A methodology according to claim 9 and wherein output of said imaging can be stored for future retrieval.

47. A system for tracking objects comprising:

visually sensible indicators on objects being tracked;

at least one imager capturing images of said objects being tracked which images also show said visually sensible indicators; and

at least one image processor receiving outputs of said at least one imager and extracting from said outputs coded information indicated by said visually sensible indicators.

48. A system for tracking objects according to claim 47 and also comprising at least one monitor receiving and displaying said coded information from said image processor.

49. A system for tracking objects according to claim 48 and wherein said at least one monitor is also operative to display said images of said objects in conjunction with said coded information.

50. A system for tracking objects according to any of claims 47-49 and wherein said visually sensible indicator indicates object identity information.

51. A system according to claim 50 and wherein said visually sensible indicator also indicates at least one additional parameter relating to said object.

52. A system for tracking objects according to any of claims 47-51 and wherein said visually sensible indicator is a dynamic indicator.

53. A system for tracking objects according to any of claims 47-52 and wherein said visually sensible indicator provides non-alphanumeric indications of multiple parameters relating to an object onto which the indicator is mounted.

54. A system for tracking objects according to any of claims 47-53 and wherein said visually sensible indicator provides a coded indication of at least two of the following parameters: object location, object identity, object maximum temperature history; object maximum humidity history; object minimum temperature history; object minimum humidity history; object tilt history, object G-force history.

55. A system for tracking objects according to any of claims 47-54 and wherein said at least one imager comprises a plurality of imagers, which plurality is greater than the number of said at least one image processor.

56. A system for tracking objects according to any of claims 47-55 and wherein said at least one imager comprises at least one scanning imager.

57. A method for tracking objects comprising:

associating visually sensible indicators with objects being tracked;

capturing images of said objects being tracked which images also show said visually sensible indicators; and

image processing outputs of said at least one imager and extracting from said outputs coded information indicated by said visually sensible indicators.

58. A method for tracking objects according to claim 57 and also comprising remotely receiving and displaying said coded information from said image processor.

59. A method for tracking objects according to claim 57 or claim 58 and also comprising displaying said images of said objects in conjunction with said coded information.

60. A method for tracking objects according to any of claims 57-59 and wherein said visually sensible indicator indicates object identity information.

61. A method according to claim 60 and wherein said visually sensible indicator also indicates at least one additional parameter relating to said object.

62. A method for tracking objects according to any of claims 57 - 61 and wherein said visually sensible indicator changes its visual display in real time in accordance with the parameters indicated thereby.

63. A method for tracking objects according to any of claims 57-62 and wherein said visually sensible indicator provides non-alphanumeric indications of multiple parameters relating to an object onto which the indicator is mounted.

64. A method for tracking objects according to any of claims 57-63 and wherein said visually sensible indicator provides a coded indication of at least two of the following parameters: object location, object identity, object maximum temperature history; object maximum humidity history; object minimum temperature history; object minimum humidity history; object tilt history, object G-force history.

65. A method for tracking objects according to any of claims 57-64 and wherein said image processor processes images captured at plural locations

66. A method for tracking objects according to any of claims 57-65 and wherein said capturing images employs at least one scanning imager.

67. A system for monitoring objects comprising:

a plurality of sensors associated with objects being monitored;

visually sensible indicators associated with each of said objects, receiving sensor outputs of said plurality of sensors and providing visually sensible indications of said sensor outputs;

at least one imager capturing images of said visually sensible indicators; and

at least one image processor receiving image outputs of said at least one imager and extracting from said image outputs coded information indicated by said visually sensible indicators.

68. A system for monitoring objects according to claim 67 and also comprising at least one monitor receiving and displaying said coded information from said image processor.

69. A system for monitoring objects according to claim 68 and wherein said at least one monitor is also operative to display said images of said objects in conjunction with said coded information.

70. A system for monitoring objects according to any of claims 67-69 and wherein said visually sensible indicators also indicate object identity information.

71. A system for monitoring objects according to claim 70 and wherein said at least one monitor is remotely located from said objects.

72. A system for monitoring objects according to any of claims 67-71 and wherein said visually sensible indicators are dynamic indicators.

73. A system for monitoring objects according to any of claims 67-72 and wherein said visually sensible indicators provides non-alphanumeric indications of multiple parameters relating to an object onto which the indicator is mounted.

74. A system for monitoring objects according to any of claims 67-73 and wherein said visually sensible indicator provides a coded indication of at least two of the following parameters: object location, object identity, object maximum temperature history; object maximum humidity history; object minimum temperature history; object minimum humidity history; object tilt history, object G-force history.

75. A system for monitoring objects according to any of claims 67-74 and wherein said at least one imager comprises a plurality of imagers, which plurality is greater than the number of said at least one image processor.

76. A system for monitoring objects according to any of claims 67-75 and wherein said at least one imager comprises at least one scanning imager.

77. A method for monitoring objects comprising:

associating a plurality of sensors with objects being monitored;

associating visually sensible indicators with each of said objects;

providing to said visually sensible indicators, sensor outputs of said plurality of sensors;

operating said visually sensible indicators to provide visually sensible indications of said sensor outputs;

employing at least one imager to capture images of said visually sensible indicators; and

employing at least one image processor to receive image outputs of said at least one imager and extract from said image outputs coded information indicated by said visually sensible indicators.

78. A method for monitoring objects according to claim 77 and also comprising remotely receiving and displaying said coded information from said image processor.

79. A method for monitoring objects according to claim 77 or claim 78 and also comprising displaying said images of said objects in conjunction with said coded information.

80. A method for monitoring objects according to any of claims 77 – 79 and also comprising indicating object identity information on said visually sensible indicators.

81. A method for monitoring objects according to claim 80 and also comprising indicating at least one additional parameter relating to said object on said visually sensible indicator.

82. A method for monitoring objects according to any of claims 77 - 81 and also comprising changing the visual display of said visually sensible indicator in real time in accordance with the parameters indicated thereby.

83. A method for monitoring objects according to any of claims 77-82 and also comprising providing non-alphanumeric indications of multiple parameters relating to an object onto which said visually sensible indicator is mounted.

84. A method for monitoring objects according to any of claims 77-83 and also comprising providing a coded indication on said visually sensible indicator of at least two of the following parameters: object location, object identity, object maximum temperature history; object maximum humidity history; object minimum temperature history; object minimum humidity history; object tilt history, object G-force history.

85. A method for monitoring objects according to any of claims 77-84 and also comprising processing images captured at plural locations.

86. A method for monitoring objects according to any of claims 77-85 and wherein said capturing images employs at least one scanning imager.